



<b>Intent:</b>	To gain an understanding of the wider world and space around us.	
<b>Starter:</b>	Rocket From Space Lands.	
<b>Core Texts:</b>	Where once we stood- Need to buy, 100 things to know about space.	
<b>Key Concepts:</b>	Curiosity, humanity, heritage, beliefs, change, impact	
<b>Outcome Pieces:</b>	Double Page Spread	
<b>Enrichment:</b>	Trip to The Space Centre	
<b>Subject Area:</b>	<b>Statements:</b>	<b>Key Vocabulary:</b>
<b>Science</b>	<p><b>Earth and Space</b></p> <ul style="list-style-type: none"> <li>• Can I describe the Sun, Moon and Earth as spherical objects? (Discussion)</li> <li>• Can I explore the planet Earth and identify its main features? (Science book)</li> <li>• Can I describe the movement of the Earth in relation to the sun and other planets in the solar system? (Science book)</li> <li>• Can I describe the movement of the Moon in relation to the Earth? (Science book)</li> <li>• Can I explain the different phases of the Moon? (Science book)</li> <li>• Can I explain why we have day and night? (Science book)</li> <li>• Can I compare the time of day at different places on the Earth? (Science book)</li> <li>• Can I explain why we have seasons and how they are different across the world? (Science book)</li> <li>• Can I name the planets in our solar system in the correct order? (Discussion)</li> <li>• Can I research information about a given planet? (Year 5 PowerPoint and Science book)</li> <li>• Can I research the different ideas about the shape of the Earth and how ideas of the solar system have developed? (Science book)</li> <li>• Can I complete a scientist study for Nicolaus Copernicus? (Science book)</li> <li>• Can I understand the importance of Stephen Hawking's work? (Science book)</li> <li>• Can I complete a biography wordle for Stephen Hawking? (Display)</li> <li>• Can I write a recount of my trip to the National Space Centre? (Science books)</li> </ul> <p><b>FORCES</b></p> <ul style="list-style-type: none"> <li>• Can I explain that unsupported objects fall towards Earth because of the force of gravity? (Science books)</li> <li>• Can I research how the theory of gravitation was developed? (Science books)</li> <li>• Can I identify the effects of air resistance and water resistance? (Science books)</li> <li>• Can I set up and conduct a class helicopter air resistance investigation? (Photos – Twitter)</li> <li>• Can I identify the effect of friction on moving objects? (Science books)</li> <li>• Can I plan, conduct and evaluate an investigation to explore the effects of friction on movement? (Science books)</li> </ul>	<p>Earth, Sun, Moon, Solar system, Sphere, Day, Night, Rotation, Phases, Theories, Developments, Season, Winter, Spring, Summer, Autumn</p> <p>Gravity, Air resistance, Water resistance, Friction, Force, Surface, Up thrust, Levers, Orbit, Planets, Axis, Spin, Sunrise, Sunset, Mercury, Venus, Mars, Earth, Jupiter, Saturn, Uranus, Neptune, Greenwich Mean Time</p> <p>Pulleys, Gears, Push, Pull</p> <p>Galileo Galilei, Isaac Newton, Newton meter, Parachute</p>



	<ul style="list-style-type: none"> <li>Can I recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect? (Science books)</li> </ul>	
	<p><b>National Curriculum:</b></p>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> <li>describe the movement of the Earth and other planets relative to the sun in the solar system</li> <li>describe the movement of the moon relative to the Earth</li> <li>describe the sun, Earth and moon as approximately spherical bodies</li> <li>use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</li> </ul> <p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> <li>explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>identify the effects of air resistance, water resistance and friction, that act between moving surface</li> <li>recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</li> </ul> <ul style="list-style-type: none"> <li>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>using test results to make predictions to set up further comparative and fair tests</li> <li>reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>
<p><b>Geography</b></p>	<ul style="list-style-type: none"> <li>Can I understand that the world is made up of hemispheres? (Topic Books)</li> <li>Can I identify the position of the equator and know why it is important? (Topic Books)</li> <li>Can I understand the significance of latitude and longitude? (Topic Books)</li> <li>Can I locate the Tropics of Cancer and Capricorn? (Topic Books)</li> <li>Can I locate the Arctic and the Antarctic circles? (Topic Books)</li> <li>Can I investigate climate zones?</li> </ul>	<p>Grid reference, Symbols, keys, Hemispheres, Equator, Latitude, Longitude, Tropic of cancer, Tropic of Capricorn, Tropic of Cancer, Tropic of Capricorn, Arctic Circle, Antarctic Circle, Greenwich Mean time, Climate zones</p>
	<p><b>National Curriculum:</b></p>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> <li>identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).</li> </ul>
<p><b>History</b></p>		
	<p><b>National Curriculum:</b></p>	
<p><b>Design Technology</b></p>		
	<p><b>National Curriculum:</b></p>	
<p><b>Art</b></p>	<ul style="list-style-type: none"> <li>Can I recall and explain what is meant by tint, tone, shade and hue? (Sketch book)</li> <li>Can I practise using a range of techniques and evaluate the effects they create? (Sketch book)</li> <li>Can I plan out the main features of my space picture? (Sketch book)</li> <li>Can I use a range of media to create a space picture? (Sketch book)</li> <li>Can I evaluate my piece of artwork? (Sketch book)</li> </ul>	<p>Tint, Tone, Shade, Hue, Texture, Blending, Technique, Appropriate</p>
	<p><b>National Curriculum:</b></p>	<p>Pupils should be taught:</p>



		<ul style="list-style-type: none"> <li>to create sketch books to record their observations and use them to review and revisit ideas.</li> <li>to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay].</li> </ul>		
<b>Music</b>	<ul style="list-style-type: none"> <li>Can I complete a musician study on Gustav Holst? (Topic book)</li> <li>Can I understand what instruments make up an orchestra?</li> <li>Can I listen and appraise planet inspired music by Gustav Holst? (Topic book)</li> <li>Can I use a range of instruments to create different sounds inspired by planets? (Photos/Videos – Twitter)</li> <li>Can I plan and create my own planet inspired music using garage band? (Garage band and instruments) (Video)</li> <li>Can I use graphic notations to record my Space inspired music? (Topic books)</li> </ul>	Gustav Holst, Appraise, Instruments, Rhythm, Melody, Graphic Notations, Dynamic, Tempo, Pitch, Inspirations, Structure		
	<p><b>National Curriculum:</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression</li> <li>improvise and compose music for a range of purposes using the inter-related dimensions of music</li> <li>listen with attention to detail and recall sounds with increasing aural memory</li> <li>use and understand staff and other musical notations</li> <li>appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians</li> <li>develop an understanding of the history of music</li> </ul>			
<b>PSHE</b>	<ul style="list-style-type: none"> <li>Can I use the story of <i>The cow who climbed the tree</i> to explore understanding of others?</li> <li>Can I listen to and respond to others whilst having discussions and debates about a range of topics?</li> </ul>	Understanding, Respect, Listen, Respond, Agree/disagree, Discuss, debate		
	<p><b>National Curriculum:</b> See PSHE Subject Lead Document.</p>			
<b>Religious Studies</b>				
	<p><b>National Curriculum:</b> .</p>			
<b>Computing</b>	<ul style="list-style-type: none"> <li>Can I continue to develop my understanding and skills on PowerPoint?</li> <li>Can I independently use search engines to find information?</li> </ul>	PowerPoint, Embed, Search Engine, Reliability		
	<p><b>E-Safety – Project Evolve</b> Strand 5 – Managing Online Information Strand 6 – Health, Well-being and Lifestyle See Project Evolve Document.</p>	Database, data, information, record, field, sort, order, group Database, data, field, record, sort, order Database, record, field, group, search, sort, order Database, record, field, value, search, criteria Database, record, field, graph, chart, axis, compare, filter Database, field, record, graph, chart, presentation		
	<p><b>NCEE Unit 4: Flat-file Databases</b></p>			
	<table border="1"> <tr> <td>To use a form to record information</td> </tr> <tr> <td>To compare paper and computer-based databases</td> </tr> <tr> <td>To outline how grouping and then sorting data allows us to answer questions</td> </tr> </table>	To use a form to record information	To compare paper and computer-based databases	To outline how grouping and then sorting data allows us to answer questions
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	To explain that tools can be used to select specific data		
	To explain that computer programs can be used to compare data visually		
	To apply my knowledge of a database to ask and answer real-world questions		
<b>National Curriculum:</b>	Pupils should be taught to: <ul style="list-style-type: none"> <li>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> </ul>		

Sequence of Lessons			
Subject	Learning Challenge	Outcomes	Concepts
1. Science	Can I describe the Sun, Moon and Earth as spherical objects? Can I explore the planet Earth and identify its main features? (Brief introduction and recap previous years' learning)		
2. Geography	Can I understand that the world is made up of hemispheres? Can I identify the position of the equator and know why it is important? Can I understand the significance of latitude and longitude?		
3. Geography (full)	Can I locate the Tropics of Cancer and Capricorn? Can I locate the Arctic and the Antarctic circles? Can I investigate climate zones?		
4. Science	Can I describe the movement of the Earth in relation to the sun and other planets in the solar system?		
5. Science	Can I describe the movement of the Moon in relation to the Earth? Can I explain the different phases of the Moon?		
6. Science	Can I explain why we have day and night? Can I compare the time of day at different places on the Earth?		
7. Science	Can I explain why we have seasons and how they are different across the world?		
8. Science	Can I name the planets in our solar system in the correct order? Can I research information about a given planet?	Powerpoint. Present to class.	
9. Science	Can I research the different ideas about the shape of the Earth and how ideas of the solar system have developed?		Heritage, beliefs
10. Science	Can I complete a scientist study for Nicolaus Copernicus?		Humanity, beliefs, change, impact

Year 5 Unit Plan: What can we learn from Space? (13 weeks)



11. Science			
12. Science	Can I understand the importance of Stephen Hawking's work? (Science book)		Humanity, beliefs
13. Science	Can I complete a biography wordle for Stephen Hawking?		
14. Science (after Space Centre visit)	Can I write a recount of my trip to the National Space Centre?		
15. Art	Can I recall and explain what is meant by tint, tone, shade and hue? Can I practise using a range of techniques and evaluate the effects they create?		
16. Art	Can I plan out the main features of my space picture?		
17. Art	Can I use a range of media to create a space picture?		
18. Art	Can I use a range of media to create a space picture?		
19. Music	Can I complete a musician study on Gustav Holst?		
20. Music	Can I understand what instruments make up an orchestra?		
21. Music	Can I listen and appraise planet inspired music by Gustav Holst?		
22. Music	Can I use a range of instruments to create different sounds inspired by planets?		
23. Music	Can I plan and create my own planet inspired music using garage band? (Garage band and instruments) (Video) Can I use graphic notations to record my Space inspired music? (Topic books)		
24. Music			
25. Art	Can I evaluate my piece of artwork?	Art	
26. PSHE (short session)	Can I use the story of <i>The cow who climbed the tree</i> to explore understanding of others? Can I listen to and respond to others whilst having discussions and debates about a range of topics?	PSHE (short session)	
27. Computing/PSHE	Can I create a pitch for our product? Can I understand the role of money in business? Can I understand how to maximise profit?	Computing/PSHE	